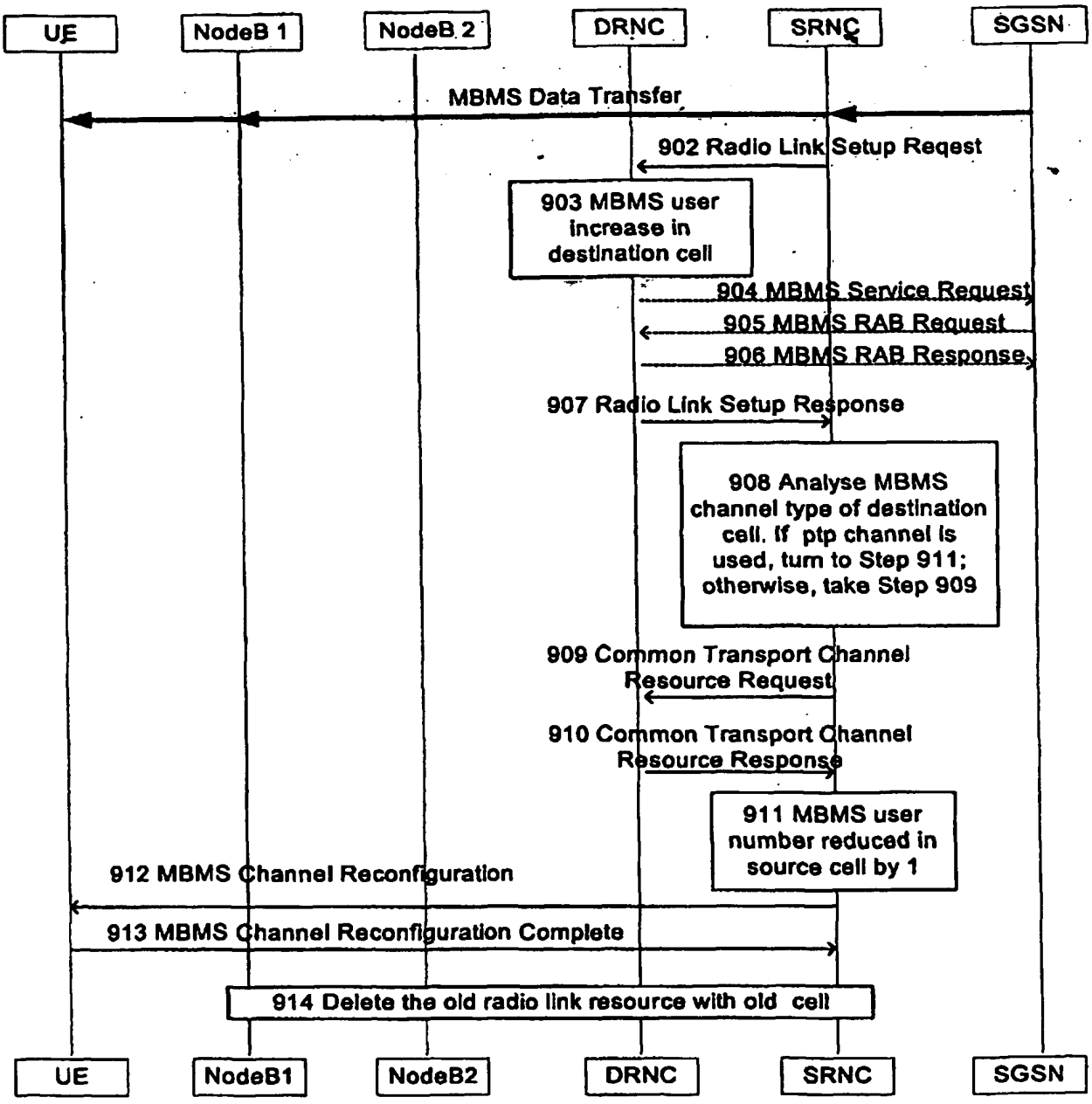
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
902 Radio Link Setup Reqest
903 MBMS user increase in destination cell
904 MBMS Service Request
905 MBMS RAB Request
906 MBMS RAB Response
907 Radio Link Setup Response
908 Analyse MBMS channel type of destination cell. If ptp channel is used, turn to Step 911; otherwise, take Step 909
909 Common Transport Channel Resource Request
910 Common Transport Channel Resource Response
911 MBMS user number reduced in source cell by 1
912 MBMS Channel Reconfiguration
913 MBMS Channel Reconfiguration Complete
914 Delete the old radio link resource with old cell
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG. 1

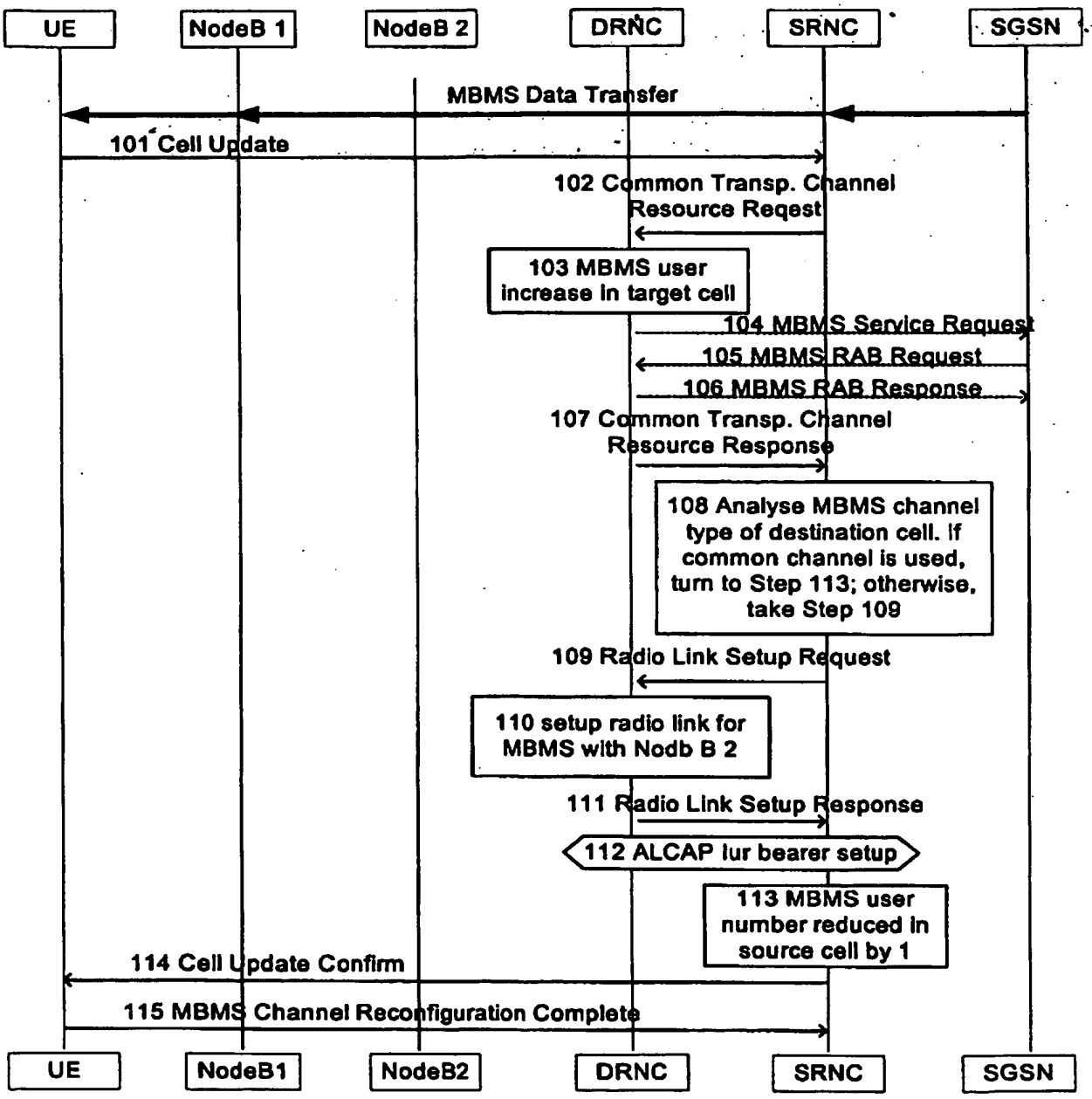
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
101 Cell Update
102 Common Transp. Channel Resource Reqest
103 MBMS user increase in target cell
104 MBMS Service Request
105 MBMS RAB Request
106 MBMS RAB Response
107 Common Transp. Channel Resource Response
108 Analyse MBMS channel type of destination cell. If common channel is used, turn to Step 113; otherwise, take Step 109
109 Radio Link Setup Request
110 setup radio link for MBMS with Nodb B 2
111 Radio Link Setup Response
112 ALCAP Iur bearer setup
113 MBMS user number reduced in source cell by 1
114 Cell Update Confirm
115 MBMS Channel Reconfiguration Complete
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG. 2

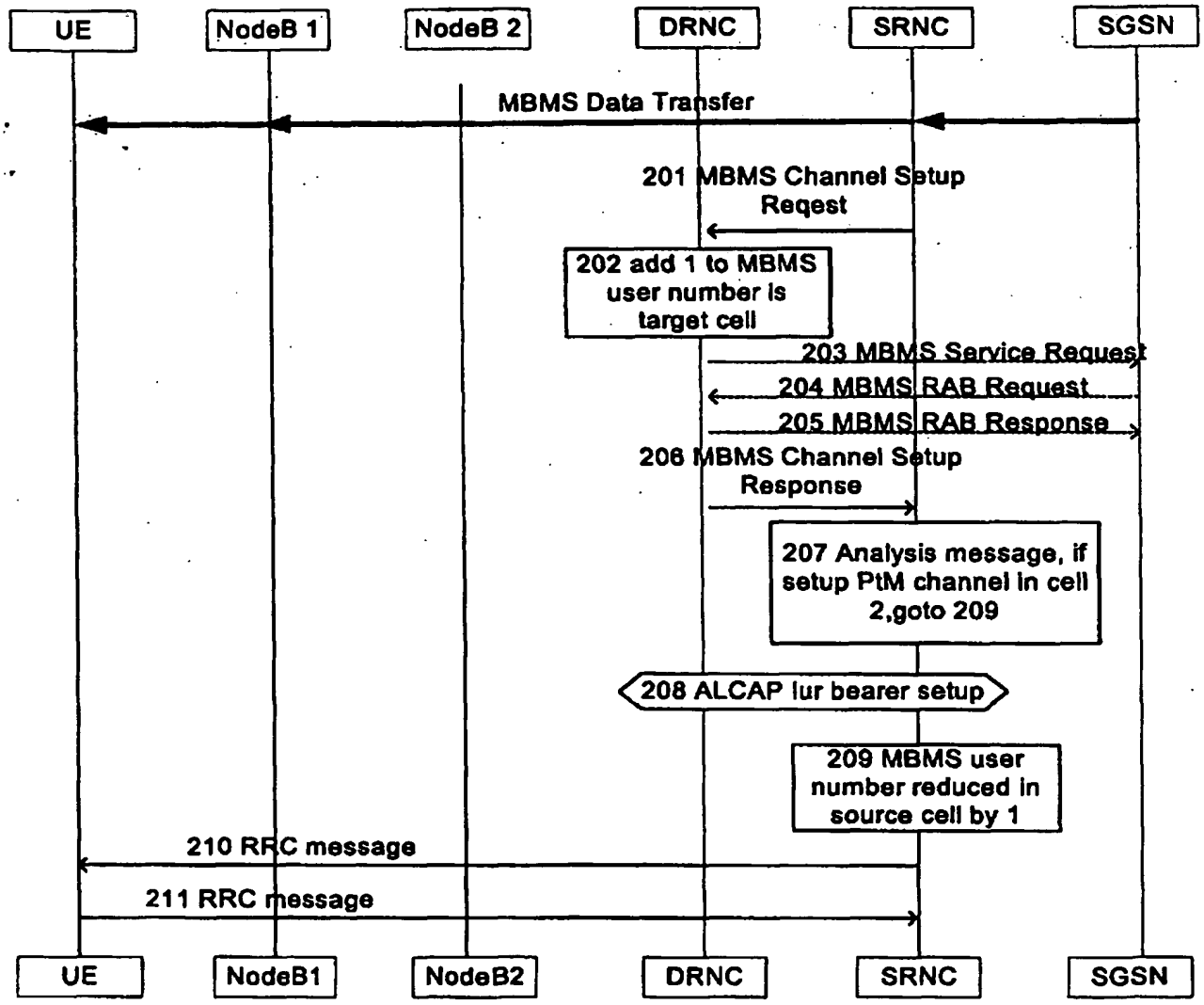
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
201 MBMS Channel Setup Reqest
202 add 1 to MBMS user number is target cell
203 MBMS Service Request
204 MBMS RAB Request
205 MBMS RAB Response
206 MBMS Channel Setup Response
207 Analysis message, if setup PtM channel in cell 2,goto 209
208 ALCAP Iur bearer setup
209 MBMS user number reduced in source cell by 1
210 RRC message
211 RRC message
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG.3

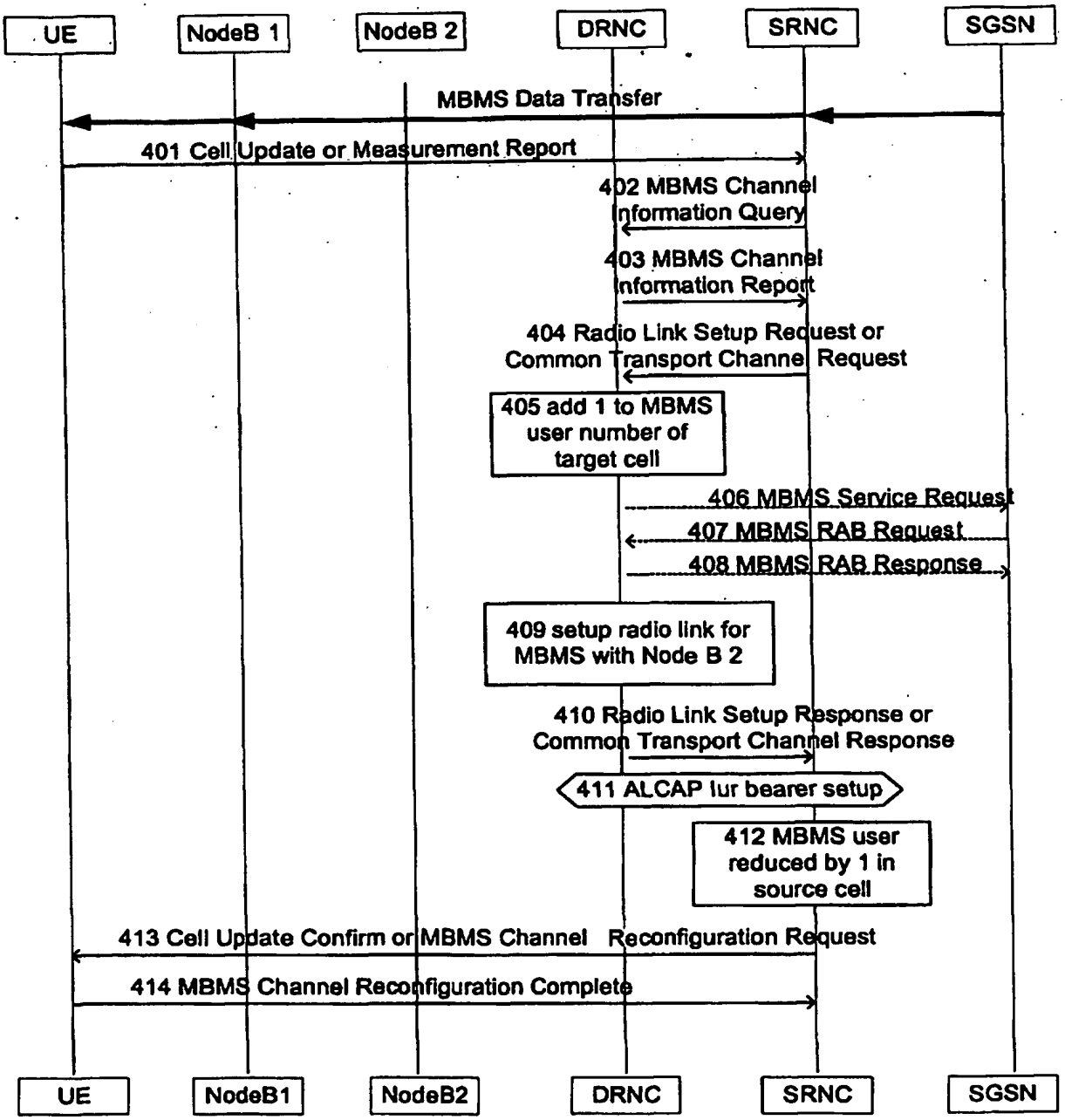
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
401 Cell Update or Measurement Report
402 MBMS Channel Information Query
403 MBMS Channel Information Report
404 Radio Link Setup Request or Common Transport Channel Request
405 add 1 to MBMS user number of target cell
406 MBMS Service Request
407 MBMS RAB Request
408 MBMS RAB Response
409 setup radio link for MBMS with Node B 2
410 Radio Link Setup Response or Common Transport Channel Response
411 ALCAP Iur bearer setup
412 MBMS user reduced by 1 in source cell
413 Cell Update Confirm or MBMS Channel Reconfiguration Request
414 MBMS Channel Reconfiguration Complete
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG.4

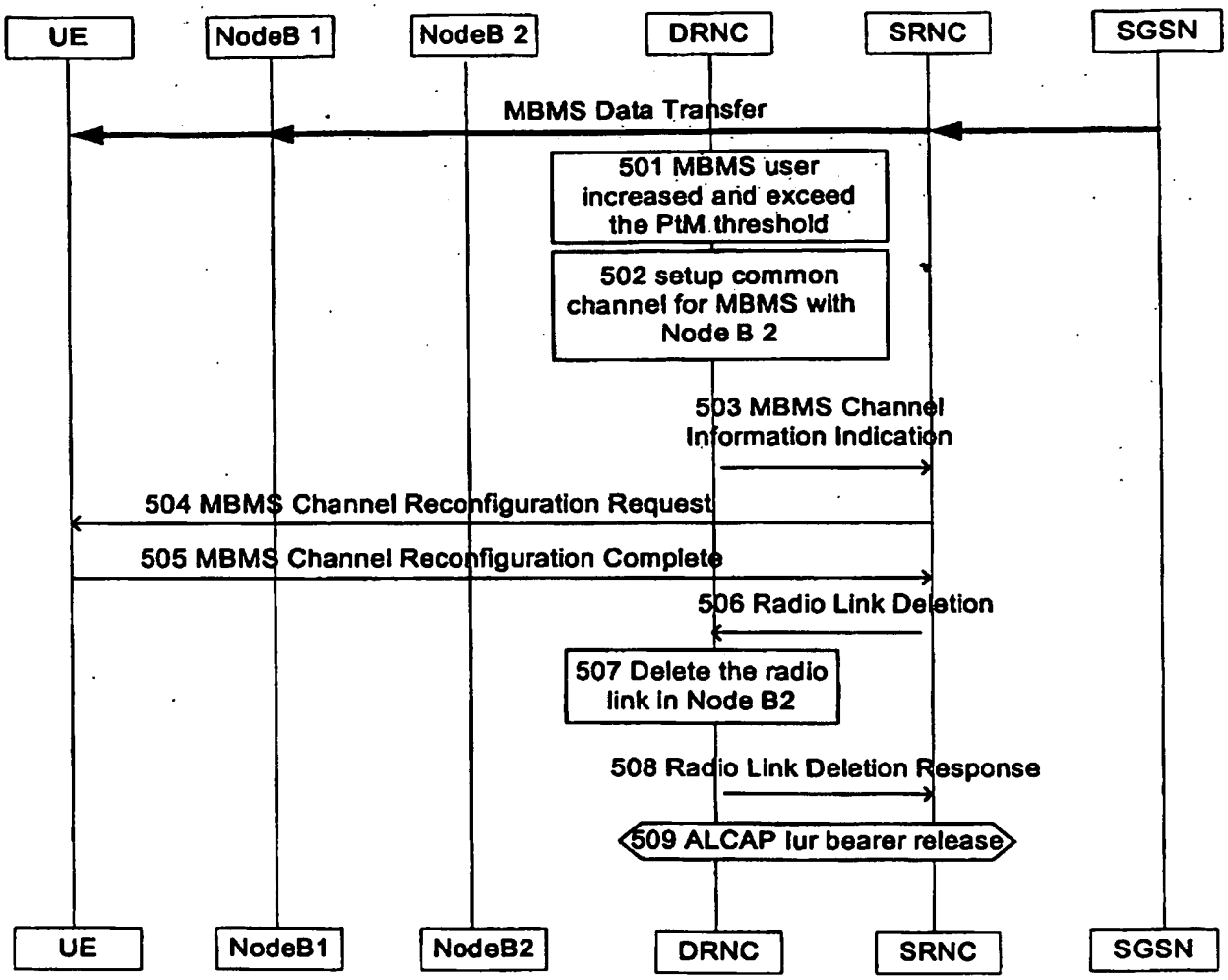
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
501 MBMS user increased and exceed the PtM threshold
502 setup common channel for MBMS with Node B 2
503 MBMS Channel Information Indication
504 MBMS Channel Reconfiguration Request
505 MBMS Channel Reconfiguration Complete
506 Radio Link Deletion
507 Delete the radio link in Node B2
508 Radio Link Deletion Response
509 ALCAP Iur bearer release
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG.5

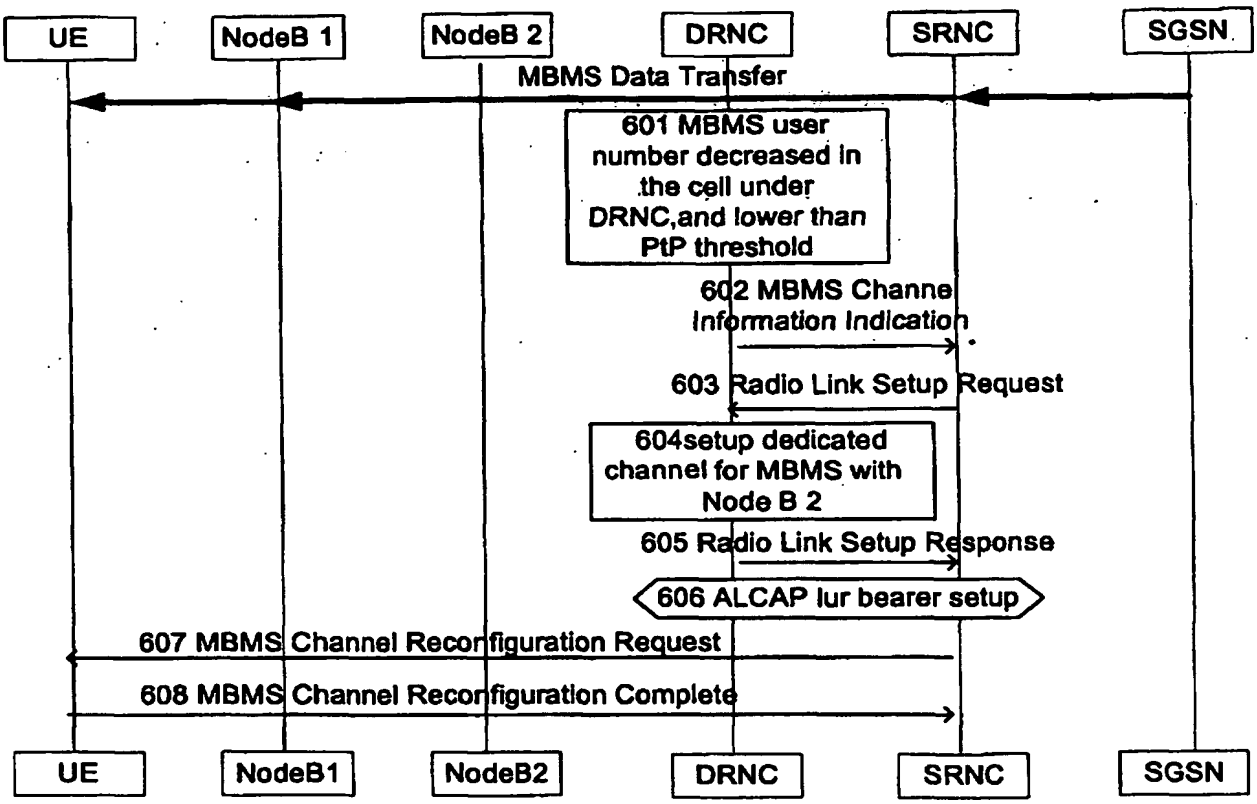
UE
NodeB 1
NodeB 2
DRNC
SRNC
SGSN
MBMS Data Transfer
601 MBMS user number decreased in the cell under DRNC,and lower than PtP threshold
602 MBMS Channe Information Indication
603 Radio Link Setup Request
604setup dedicated channel for MBMS with Node B 2
605 Radio Link Setup Response
606 ALCAP Iur bearer setup
607 MBMS Channel Reconfiguration Request
608 MBMS Channel Reconfiguration Complete
UE
NodeB1
NodeB2
DRNC
SRNC
SGSN

FIG.6

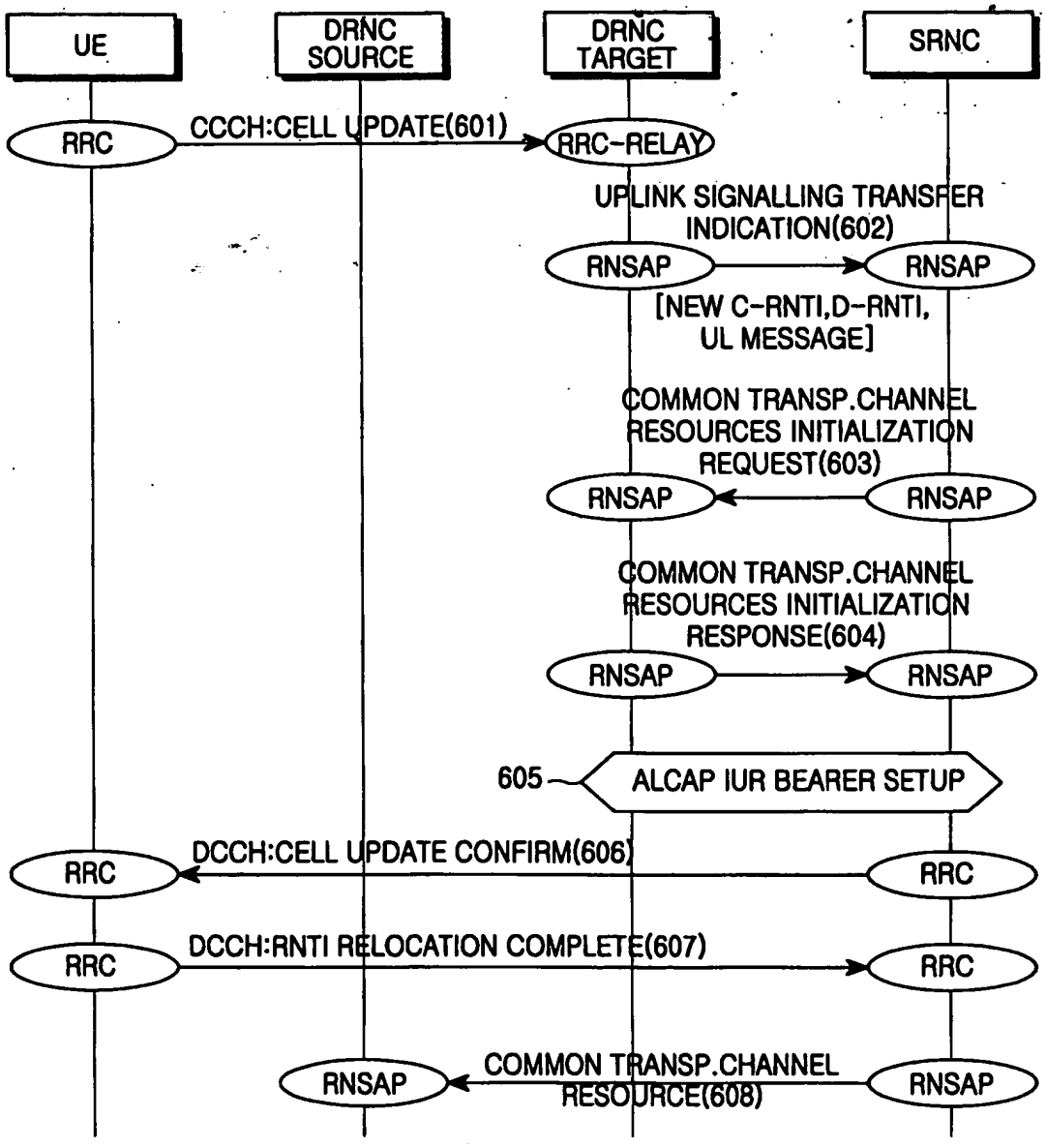
UE
DRNC SOURCE
DRNC TARGET
SRNC
RRC
CCCH:CELL UPDATE(601)
RRC-RELAY
UPLINK SIGNALLING TRANSFER INDICATION(602)
RNSAP
RNSAP
[NEW C-RNTI,D-RNTI, UL MESSAGE]
COMMON TRANSP.CHANNEL RESOURCES INITIALIZATION REQUEST(603)
RNSAP
RNSAP
COMMON TRANSP.CHANNEL RESOURCES INITIALIZATION RESPONSE(604)
RNSAP
RNSAP
605
ALCAP IUR BEARER SETUP
DCCH:CELL UPDATE CONFIRM(606)
RRC
RRC
DCCH:RNTI RELOCATION COMPLETE(607)
RRC
RRC
COMMON TRANSP.CHANNEL RESOURCE(608)
RNSAP
RNSAP

FIG.7

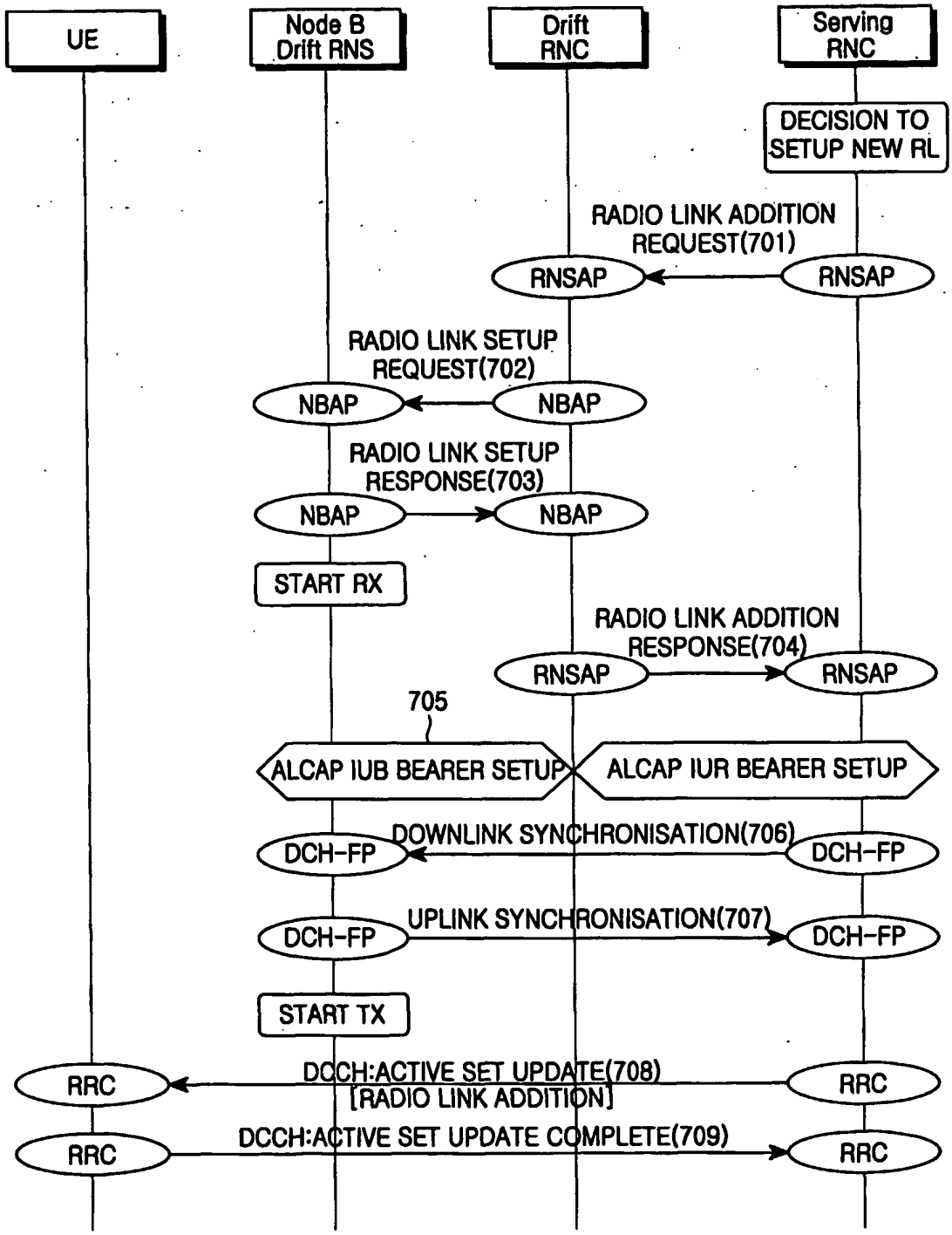
UE
Node B
Drift RNS
Drift
RNC
Serving
RNC
DECISION TO
SETUP NEW RL
RADIO LINK ADDITION
REQUEST(701)
RNSAP
RNSAP
RADIO LINK SETUP
REQUEST(702)
NBAP
NBAP
RADIO LINK SETUP
RESPONSE(703)
NBAP
NBAP
START RX
RADIO LINK ADDITION
RESPONSE(704)
RNSAP
RNSAP
705
ALCAP IUB BEARER SETUP
ALCAP IUR BEARER SETUP
DOWNLINK SYNCHRONISATION(706)
DCH-FP
DCH-FP
UPLINK SYNCHRONISATION(707)
DCH-FP
DCH-FP
START TX
DCCH:ACTIVE SET UPDATE(708)
[RADIO LINK ADDITION]
RRC
RRC
DCCH:ACTIVE SET UPDATE COMPLETE(709)
RRC
RRC

FIG.8

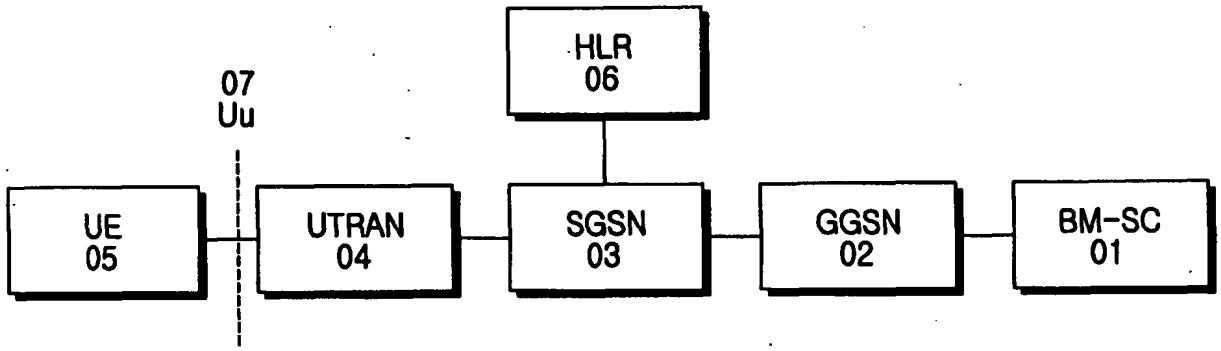

FIG.9